Operating Instructions
Bedienungsanleitung
Mode d'emploi
Istruzioni per l'uso

STEREO DOUBLE CASSETTE TAPE DECK
STEREO-DOPPELKASSETTENDECK
MAGNETOPHONE DOUBLE CASSETTE STEREO
DOPPIA PIASTRA DI REGISTRAZIONE

CT-055W
CT-1050W

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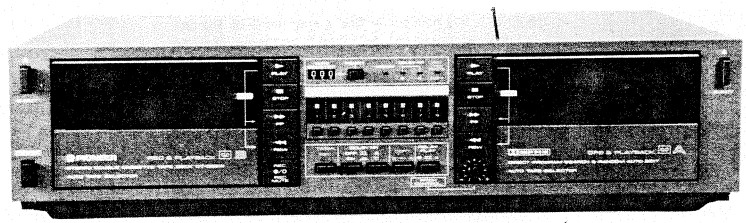


NOTE:
The photograph and illustration are for the CT-055W. However, the description also applies to the CT-1050W.

Thank you for buying this Pioneer product.
Please read these operating instructions thoroughly, so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.
For the sake of convenience, these operating instructions are based on the model HEM, and they can be used for the HB, HP, KU, KC, D/G and D models.
The differences between the models are given below.

HEM model:
For Europe excluding U.K. ('HEM' stamped on packing case): A 2-Point (220 V/240 V) voltage selector switch is provided.

HB model:
For U.K. ('HB' stamped on packing case): A 2-Point (220 V/240 V) voltage selector switch is provided.

HP model:
For Australia ('HP' stamped on packing case): Power line voltage is AC 240 volts.

KU and KC models:
For U.S.A. and Canada ('KU' or 'KC' stamped on packing case): Power line voltage is AC 120 volts.

S and S/G models:
For destinations excluding above ('S' or 'S/G' stamped on packing case): A 4-point (110 V/120 V/220 V/240 V) voltage selector switch is provided.

NOTE:
Depending upon the model, the design of the power plug and the power outlet differs.

The line voltage selector switch is located on the rear panel of the unit. Please check that it is set properly before plugging the power cord into an outlet.

IMPORTANT NOTICE (For KU and KC models)

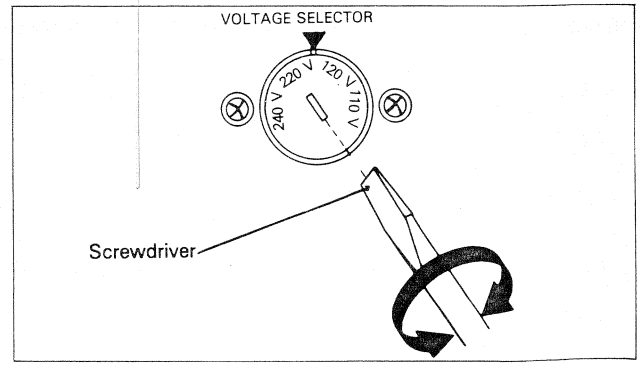
The serial number for this equipment is located on the rear panel. Please write this serial number on your enclosed warranty card and keep in a secure place. This is for your security.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

LINE VOLTAGE SELECTION (S and S/G models only)

Before your model is shipped from the factory, the switch is set to the power requirements of the destination; nevertheless, you should check that it is set properly before plugging the power cord into the AC outlet.

1. Disconnect the power cord.
2. Provide yourself with a medium size screwdriver.
3. Insert the screwdriver into the groove on the voltage selector and adjust to the voltage value of your area.



ENGLISH
DEUTSCH
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PIONEER®

SAFETY INSTRUCTIONS

READ INSTRUCTIONS — All the safety and operating instructions should be read before the appliance is operated.

RETAIN INSTRUCTIONS — The operating instructions should be retained for future reference.

HEED WARNING — All warnings on the appliance and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS — All operating and use instructions should be followed.

WATER AND MOISTURE — The appliance should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

LOCATION — The appliance should be installed in a stable location.

WALL OR CEILING MOUNTING — The appliance should not be mounted to a wall or ceiling.

VENTILATION — The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

HEAT — The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

POWER SOURCES — The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

POWER-CORD PROTECTION — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

POLARIZATION — If your purchased product is provided with a polarized power plug, please read the following instructions. This product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

CLEANING — The appliance should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzine, insecticides or other volatile liquids since they may corrode the cabinet.

POWER LINES — An outdoor antenna should be located away from power lines.

NONUSE PERIODS — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

OBJECT AND LIQUID ENTRY — Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

DAMAGE REQUIRING SERVICE — The appliance should be serviced by Pioneer authorized service center or qualified service personnel when:

- The power-supply cord or the plug has been damaged; or
- Objects have fallen, or liquid has been spilled into the appliance; or
- The appliance has been exposed to rain; or
- The appliance does not appear to operate normally or exhibits a marked change in performance; or
- The appliance has been dropped; or the enclosure damaged.

SERVICING — The user should not attempt to service the appliance beyond that described in the operating instructions. For all other servicing, contact the nearest Pioneer authorized service center.

OUTDOOR ANTENNA GROUNDING — If an outside antenna is connected to the antenna terminal, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.

In the U.S.A. section 810 of the National Electrical Code, ANSI/NEPA No. 70-1981, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Fig. A.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE INSTRUCTIONS

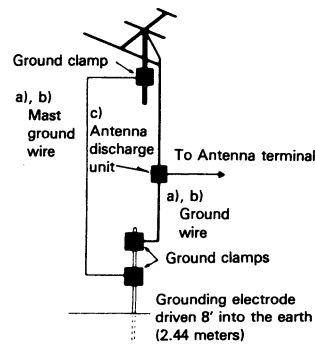

Fig. A

a) Use No. 10 AWG (5.3 mm²) copper or No. 8 AWG (8.4 mm²) aluminum or No. 17 AWG (1.0 mm²) copper-clad steel or bronze wire, or larger as ground wires for both mast and lead-in.
b) Secure lead-in wire from antenna to antenna discharge unit and mast ground wire to house with stand-off insulators, spaced from 4 feet (1.22 meters) to 6 feet (1.83 meters) apart.
c) Mount antenna discharge unit as closely as possible to where lead-in enters house.

IMPORTANT 1

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT 2

If the apparatus is fitted with AC main power outlet(s), see REAR PANEL FACILITIES for convenient connection of additional Hi-Fi component(s). Make all connections to the AC outlet(s) and the signal terminals first. Connect the plug to the wall socket last, make sure that the power switch is off. Disconnect the wall plug when the equipment is not in regular use, e.g. when on vacation.

FOR USE IN THE UNITED KINGDOM AND AUSTRALIA

CAUTION 240 V: **Mains supply voltage is factory adjusted at 240 V.**

FOR USE IN THE UNITED KINGDOM

WARNING: This plug must only be connected to electronic apparatus equipped with suitable sockets.
Otherwise cut off and dispose of the plug, and fit an appropriate one in accordance with the instruction below.

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral
Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured marking identifying the terminals in your plug proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

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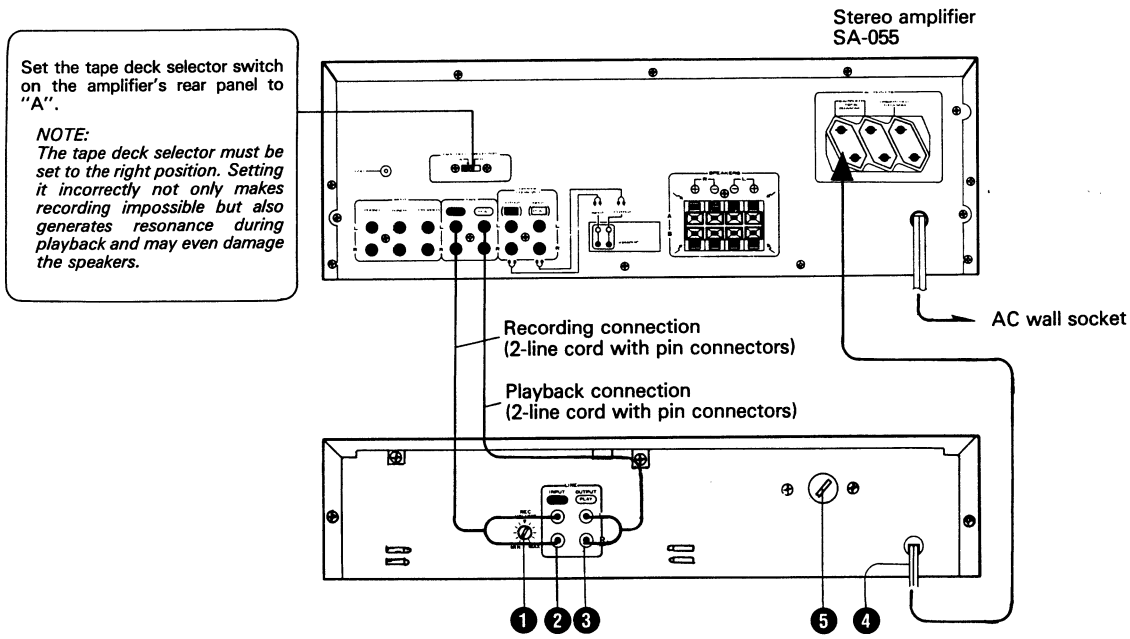
REAR PANEL FACILITIES AND CONNECTIONS

- Do not switch on the power until all the connections have been completed.
- Set the stereo amplifier's power switch to OFF and its volume control to the minimum position.
- The top jacks are for the left (L) channel; the bottom jacks are for the right (R) channel.
- The white plug on the accessory pin plug cord is for the left (L) channel; the red plug is for the right (R) channel. Connect the plugs properly since faulty connections can cause noise.
- Make certain the connectors are pushed all the way in. An improper connection or poor contact will result in no sound, or will degrade the sound.


Set the tape deck selector switch on the amplifier's rear panel to "A".
NOTE:
The tape deck selector must be set to the right position. Setting it incorrectly not only makes recording impossible but also generates resonance during playback and may even damage the speakers.
Stereo amplifier
SA-055
AC wall socket
Recording connection
(2-line cord with pin connectors)
Playback connection
(2-line cord with pin connectors)
1 2 3
5 4

❶ RECORDING VOLUME KNOB (INPUT)

When used with components such as Pioneer SA-055 and SA-1050, set this knob to the center click position.

This setting may require changing when used with other components. If playback level is low, or noise is in the program, fine adjust this knob.

❷ LINE INPUT TERMINALS

The signals to be recorded are received here. Connect the accessory cord to the amplifier's TAPE REC terminals.

❸ LINE OUTPUT TERMINALS

The playback signals are sent from here to the stereo amplifier. Connect the accessory cord to the amplifier's TAPE PLAY terminals.

❹ POWER CORD

Plug the power cord into the SWITCHED AC OUTLET on the rear panel of the amplifier or into an AC wall socket.

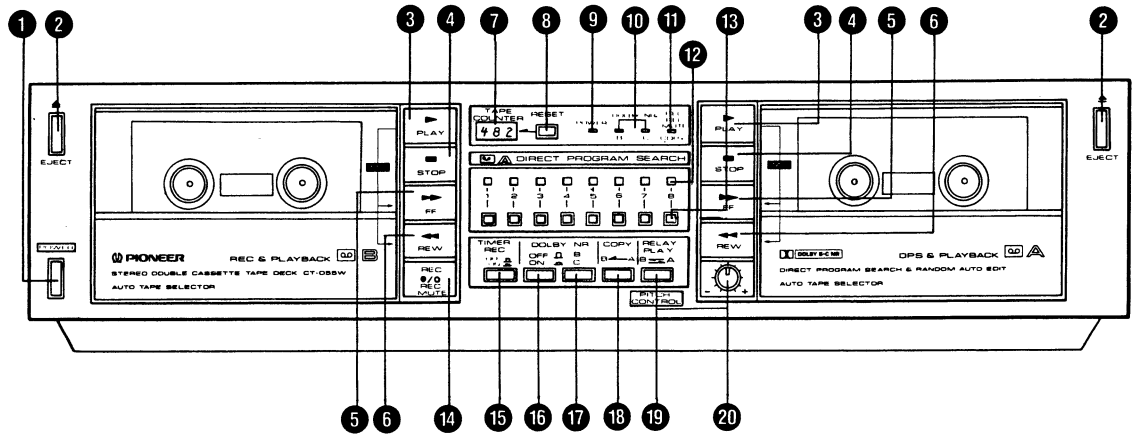
❺ LINE VOLTAGE SELECTOR (S and S/G models only)

Check that the correct voltage is selected.

ENGLISH

FRONT PANEL FACILITIES

DECK A is for exclusive use on playback. DECK B can be used for either playback or recording.



❶ POWER SWITCH

When this switch is depressed, power is turned ON, and when it is depressed again, power is turned OFF. When you depress the power switch, be sure the timer switch (TIMER REC) is set to the OFF position.

- After the switch is set to the ON position, the muting circuit is activated and so the unit will not operate for about 4 seconds.
- When the POWER switch is set to OFF while the tape deck is operating, the operational mode is released and the unit is set to the stop mode.

❷ EJECT BUTTON

Depress this button to open the cassette door. To close the cassette door, push the top back until it locks.
Do not press this button when the tape is in motion.

❸ PLAY SWITCH (►)

Press this switch to play back a tape.

❹ STOP SWITCH (■)

Press this switch to stop the tape travel and to release the operating switches.

❺ FF SWITCH (►►)

Press this switch to send the tape forward at high speed. (The tape will travel from left to right.)

❻ REW SWITCH (◄◄)

Press this switch to rewind the tape at high speed. (The tape will travel from right to left.)

❼ TAPE COUNTER

This indicates the transport position of the tape loaded in Deck B with a 3-digit number.

❽ COUNTER RESET BUTTON

Depress this button to reset the tape counter display to 000.

❾ POWER INDICATOR (POWER)

This indicator lights when the POWER switch is set to ON.

❿ DOLBY INDICATORS (DOLBY NR)

These light when the DOLBY NR switch is set to ON .
[B]: This lights when the B type Dolby noise reduction system is operating.
[C]: This lights when the C type Dolby noise reduction system is operating.

⓫ REC, REC/MUTE, COPY INDICATOR

This indicator lights when the deck is in the recording mode. During recording muting, the indicator flashes rapidly. During tape copying, the indicator flashes slowly.

⓬ PROGRAM INDICATOR

⓭ DIRECT PROGRAM SEARCH SWITCH

Press to memorize program selections (see page 10).

⑭ REC/REC MUTE SWITCH (●/○)

This switch functions as both the recording switch and record muting switch. When pressed, the unit is set to the recording mode and when it is kept pressed during recording, it functions as the recording mute switch.

Recording switch

Press the switch when recording sound onto the tape. The REC/MUTE indicator now lights. If the accidental erasure prevention tabs on the cassette shell have been broken out or the tape has not been loaded, the unit will not be set to the recording mode even if this switch is pressed. Press the STOP switch (■) to release the recording mode.

Recording mute switch

When this switch is pressed during recording, unrecorded blanks can be created for as long as the switch is kept pressed. While kept pressed, the REC/MUTE indicator will flash rapidly. Use this switch for efficient editing of tapes with sufficient blanks between the programs and for providing the unrecorded blanks which are required to operate the music search function.

This switch does not lock and so functions only while it is kept in the pressed position. When pressed during a recording, no sound is recorded and so the switch should not be pressed unless absolutely necessary.

⑮ TIMER REC SWITCH

This switch is used when an optional audio timer is utilized for unattended recording.
Timer recording is a function of DECK B. DECK A cannot be used for timer recording.

NOTE:
The timer switch should always be in the OFF position when not performing timer recording. If a cassette tape is inserted and the switch is set to the REC position, the unit will automatically enter the recording mode whenever the power switch is turned on.

⑯ *DOLBY NR SWITCH (DOLBY NR ON/OFF)

Depress this switch to ON for recording with the built-in Dolby Noise Reduction system and for playback of tapes which have been recorded using the Dolby Noise Reduction system.
For other tapes, do not press this switch.

*Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

⑰ DOLBY B/C SELECTOR SWITCH (DOLBY NR B/C)

This deck is equipped with both type B and type C Dolby noise reduction systems. After the DOLBY NR ON/OFF switch is pressed, select type B or C using this switch. The Dolby indicator corresponding to the switch position lights.

⑱ COPY SWITCH (B → A)

"Copying" refers to the process of transferring the recorded contents on a pre-recorded tape onto another tape. The pre-recorded tape is loaded into Deck A and its contents are recorded onto Deck B. When the switch is pressed, the REC/MUTE indicator will flash slowly. Tape copying cannot be performed from Deck B to Deck A. The playback tape is loaded into Deck A while the recording tape is loaded into Deck B. When this switch is pressed, Deck A is automatically set to the playback mode and Deck B is automatically set to the recording mode, and the tapes start to move simultaneously.

⑲ RELAY PLAY SWITCH (B ⇄ A)

Press this switch for relay play. When pressed, the program indicators "1" and "8" will light alternately. When the tape loaded in one deck has finished playing and the tape comes to the end, the tape in the other deck automatically starts playback. Relay play is possible from Deck A to Deck B and vice versa.

⑳ PITCH CONTROL

This can be used to vary the tape speed of Deck A across a ± 6% range. The speed increases when the control is rotated clockwise (↻) and reduces when rotated counterclockwise (↺); the musical intervals are made higher or lower, respectively. The standard speed is obtained at the control's center clickstop position (▼). Use the control to adjust the speed when adjusting the intervals with mixing recording or playback or when playing back a tape recorded on another tape deck on your own deck.

NOTE:
Set this control to the clickstop position (▼) when using the music search function. If it is left rotated clockwise, it will not be possible to detect the unrecorded blanks between the programs on the tape during fast forwarding or rewinding operations.

ENGLISH

CASSETTE TAPES

CHECK CASSETTE BEFORE USE

Slack or protruding tape

If the tape protrudes from the cassette as shown in Fig. A or is slack, the tape may run without passing between the capstan and the pinch roller and so may be damaged. Take up the slack by inserting a pencil through the reel hub and turning it as shown in Fig. A.
Some tapes provide a tape stopper to prevent tape slack. Make sure that you remove the tape stopper before inserting the tape into the deck.

Erasure prevention tabs

Cassette tapes are provided with erasure prevention tabs, as shown in Fig. B, which act as a protection device to prevent the accidental erasure of a recording which you want to keep. If you remove the tabs, as shown in Fig. B, with a screwdriver you will be able to prevent erasure if you accidentally set the tape deck to the recording mode by depressing the REC switch.
To re-record, cover the tab opening with adhesive tape (Fig. C).
Be careful not to cover the detection holes on CrO_2 tape cassettes.

NOTE:

Cassette tapes are provided with two tabs (A or 1 and B or 2) so you can protect the recordings on both sides.

HINTS ON HANDLING CASSETTE TAPES

- **Check the tape before recording.**

  Before starting to use the tape for recording, load the tape and set the tape deck to fast forward or rewind.
  This will safeguard the deck against damage caused by irregularities in the tape winding.

- **Take care with the leader tape.**

  A leader tape is attached to the beginning of the cassette tape (you cannot record on it). It takes about 5 seconds for it to pass through, so bear this point in mind when recording.

- **Do not load a cassette immediately after cleaning the heads.**

  Do not load a cassette immediately after you have cleaned the heads until the head surfaces are completely dry (this takes 2~3 minutes).

- **Storing cassette tapes**

  Do not store your cassette tapes without putting them in their cases since dust and dirt will adhere to them. Always store in a location which is free from dust, dirt, oil, and magnetic effects.

- **Do not use the C-120 tapes.**

  The C-46, C-60 and C-90 tapes are most commonly used.
  The C-120 tapes are not recommended because their mechanical and electrical specifications vary.

Pioneer offers the following tapes:

Normal position tapes	N1a-46, N1a-60, N1a-90 N2a-46, N2a-60, N2a-90 N3a-46, N3a-60, N3a-90
Chrome position tapes	C1a-46, C1a-60, C1a-90
Metal position tapes	M1a-46, M1a-60

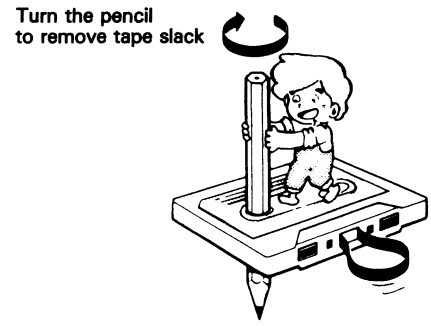


Fig. A

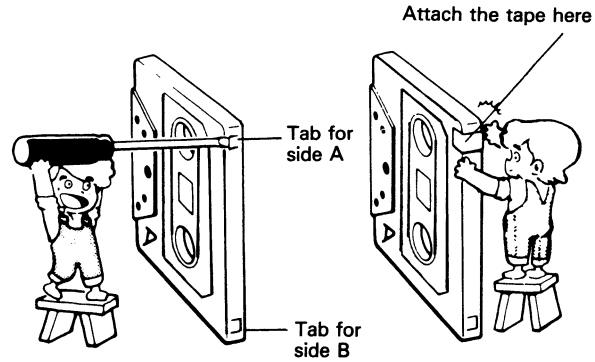


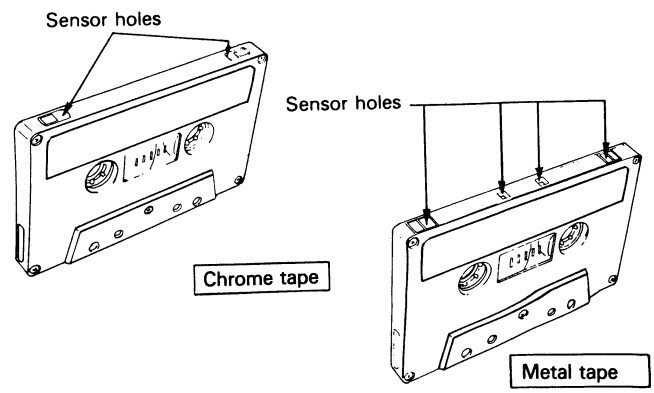
Fig. B

Fig. C

REGARDING THE TAPE CASSETTE SENSOR HOLES

This function utilizes the holes on the cassette to determine the type of tape being used, and sets the unit accordingly, to match the tape's recording bias and equalization. The sensor holes for the various types of tape are shown in the illustration.

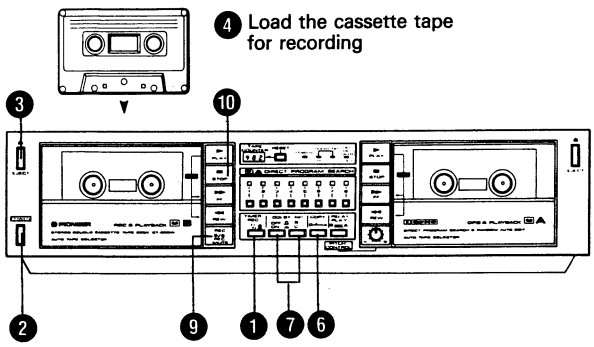
- Normal tapes have no sensor holes, and are thus detected as normal.
- When metal tapes without sensor holes are used, the tape selector will switch to the CrO_2 position. In this case, optimum recording and erasure may not be possible. We thus recommend that you use metal tapes with sensor holes. However, pre-recorded metal tapes can be played as they are on this unit.



RECORDING

Deck B is for recording and playback. Deck A cannot be used for recording.

- Is the power cord correctly connected to an outlet?
- Are connecting cords and wires connected correctly?
- Is the TIMER switch set to the OFF position?
- Are the accidental erasure prevention tabs broken out of the tape cassette?
- If using metal or chromium dioxide tapes, does the tape cassette have sensor holes?
- Is the program source ready to be recorded?



1 Set the TIMER REC switch to OFF.

2 Depress the POWER switch to ON.

3 Depress the EJECT button to open the cassette door.

4 Load the recording tape with the exposed tape surface facing down.

5 Close the cassette door.

6 Check that the COPY switch is at the OFF position.

> The signals from the rear panel's LINE INPUT REC terminals will not be recorded when the COPY switch is at the ON position. After a copying operation, try to get into the habit of setting the switch to OFF as this will prevent mistakes being made in recording.

7 Select the DOLBY NR switch positions.

When recording a tape with the Dolby noise reduction system, press the DOLBY NR switch on the left to the ON position (⎍). Then select either type B or type C by pressing the switch on the right. For type B, the switch should be at the released position (⎍), and for type C, it should be at the depressed position (⎍).

8 Set up the program source (records or FM broadcast, etc.) which you intend to record.

9 Press the REC/REC MUTE switch to start recording.

10 Press the STOP switch (■) to stop the recording.

When the tape is fully wound up onto the right-hand reel, the auto-stop mechanism function to automatically stop the tape.

ERASING RECORDED SOUND

When a new recording is made on a pre-recorded tape, the new recording erases the old recording.

TO CREATE A BLANK (NON-RECORDED) INTERVAL DURING RECORDING

By depressing the REC/MUTE switch during recording, you can create a non-recorded interval.

- Use during the recordings of FM broadcasts to cut out commercials and other unwanted material, thus creating a tape with continuous music with only an appropriate pause between selections.
- Use also when making recordings from records to eliminate the sound of the stylus lowering onto the record.
- This function can also be used to create the four seconds of non-recorded interval neeeded for detection purposes when utilizing the Music Search function.

1. Begin recording.
2. When recording a program has been finished, push the REC MUTE switch, creating an appropriate non-recorded interval (4~6 seconds). This switch does not lock, so it functions only during the time it is held down manually. During muting, the REC/REC MUTE indicator will flash rapidly.

DOLBY TYPES B AND C

The tape hiss (noise mainly in the high-frequency range) heard when a recorded tape is played back can be very irritating. This is particularly the case in pianissimo treble sections where violins, for instance, are heard in an orchestral piece. The Dolby noise reduction system was developed in order to reduce this tape hiss. The Dolby type B system is already widely used for noise reduction but this unit features not only this type but also type C.

What the system does is this: when the midrange and treble sections, where the tape hiss is noticeable, are lower than the prescribed level, it records those sections at a level higher than the recording level at the "OFF" position of the Dolby system. During playback, the level is reduced by an amount equivalent to this increase and the sound is played back with a reduction in tape hiss. This operation is performed automatically in accordance with the strength of the input signals, and it is possible to improve the signal-to-noise ratio at frequencies over 5 kHz by about 10 dB. As a result, the system is really effective for the recording and playback of ordinary broadcasts and records, etc.

However, when recording a program source with a wide dynamic range, a greater reduction in the noise is required. It was for this reason that the Dolby type C system was developed.

The big difference between type B and type C is that the improvement in the high-frequency range noise is approximately a high 19 dB, compared with the "OFF" position of the Dolby system, and that the dynamic range is extended without causing the sound quality to change (without generating breathing noise).

- A note should be made of each tape recorded with the Dolby system so that it is not mistakenly played back with the Dolby system off.
- Always play back tapes with the same Dolby function which was used when they were recorded. Playing back a tape recorded with the Dolby system at the OFF (non-Dolby) position or playing back a normal tape with the Dolby system will not result in the faithful reproduction of the original sound.

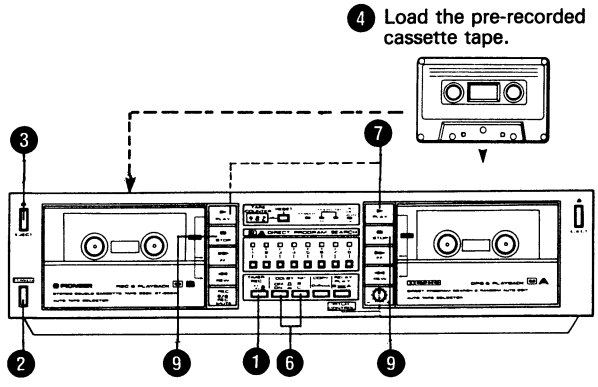
ENGLISH

PLAYBACK

Deck A is for playback only. Deck B can be used for playback or recording:

The two decks cannot be played back at the same time. The deck whose PLAY switch is pressed first will play back first.

- Is the power cord properly plugged into the outlet?
- Is the amplifier properly set for tape playback?
- Is the TIMER switch set to the OFF position?
- Are all connecting cords properly connected?



1 Set the TIMER REC switch to OFF.

2 Depress the POWER switch to ON.

3 Depress the EJECT button to open the cassette door.

4 Load the pre-recorded cassette tape into the cassette holder with the exposed tape surface facing down.

5 Close the cassette door.

6 Select the DOLBY switch positions.

When playing back a tape which has been recorded using the Dolby system, press the left switch to the ON position (⏍). Then select type B or C using the right switch. Release the switch (⊓) for type B; press the switch for type C (⏍). Release the left switch to the OFF position when the Dolby system is not to be used.

7 Press the PLAY (►) switch.

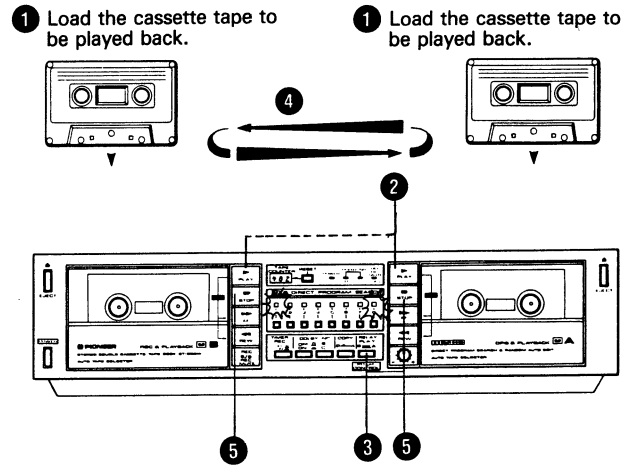
8 Adjust the volume to the preferred level by the volume control on the stereo amplifier.

9 Press the STOP switch (■) to stop playback.

When the tape is fully wound up onto the right-hand reel, the auto-stop mechanism functions to automatically stop the tape.

RELAY PLAY

This unit comes with a relay play function. This means that when the tape loaded in one deck has finished playing and the tape comes to the end and stops automatically, the tape in the other deck starts to play back automatically. Relay play is possible from Deck A to Deck B and from Deck B to Deck A.



1 Load the cassette tapes to be played back into Deck A and Deck B.

Check that the tapes are wound up on the left-hand reels.

2 Press the PLAY switch (►) of Deck A or Deck B to start playback.

3 Press the RELAY PLAY switch.

4 When the tape which is playing back reaches the end and automatically stops, the other deck automatically starts playback.

5 Press the STOP switch (■) to stop the playback.

To stop relay play, release the RELAY PLAY switch.

During replay playback, the program indicators "1" and "8" will light alternately.

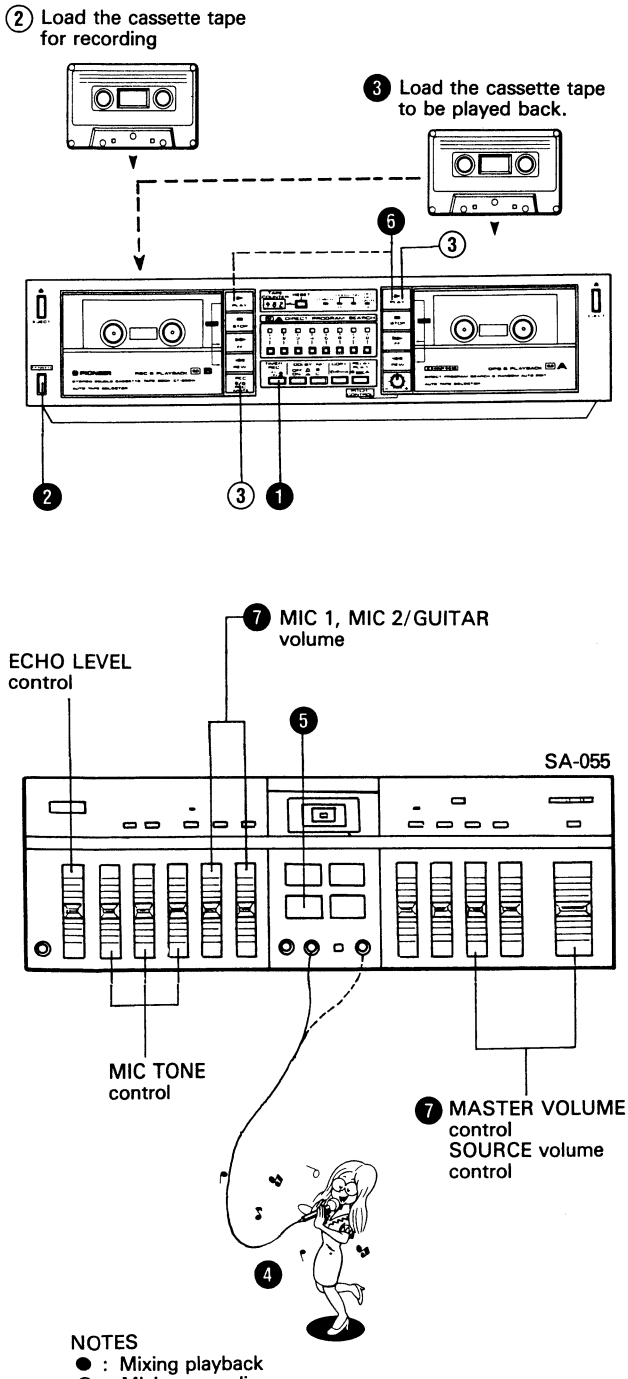
AUTO-STOP MECHANISM

When the tape is fully wound onto one of the reels during recording, playback, fast forward or rewind, the auto-stop mechanism is activated without the STOP (■) switch having to be depressed, and the tape will automatically come to a halt several seconds later. The power does not go off when the auto-stop mechanism is activated.

MIXING RECORDING/PLAY BACK

When this unit is used in combination with PIONEER's SA-055 stereo amplifier, or with any other mixing amplifier, you can sing along with a pre-recorded back-up tape or record your own voice and mix it with accompaniment. The explanation that follows is based upon use with the Pioneer stereo amplifier SA-055.

Proper operation is the key to good-quality mixing recording and playback. Read through the Operating Instructions of the stereo components used in combination with the unit before proceeding to operate.



NOTES
● : Mixing playback
○ : Mixing recording

MIXING PLAYBACK

You can use a microphone to mix the sound of your own voice with a pre-recorded music back-up tape when practicing singing or at parties.

❶ Set the TIMER REC switch to OFF.

❷ Depress the POWER switch to ON.

❸ Load the music back-up tape to be played back into Deck A or Deck B.

❹ Connect the microphone to the MIC 1 or MIC 2 jack on the stereo amplifier.

When singing a duet, attach microphones to both the MIC 1 and MIC 2 jacks.

❺ Set the FUNCTION switch on your stereo amplifier to TAPE.

❻ Press the PLAY (►) switch on the cassette tape deck.

❼ Adjust the mixing balance between the microphone and tape.

- Adjust the tape volume by using the MASTER VOLUME control and the SOURCE volume control. Use the MIC 1 volume and/or the MIC 2/GUITAR volume controls to adjust the microphone volume.
- The ECHO LEVEL control can be used to add echo effects to microphone sounds, while the microphone's tone can be adjusted with the MIC TONE control.

Howl (a prolonged wailing noise) may occur if the microphone is brought too close to the speakers. At times like this, place the microphone at a distance from the speakers or turn down the microphone's volume.

MIXING RECORDING

You can mix the sound of the back-up tape with the sound of your own voice and record the resulting sound.

① Perform steps ❶ ∼ ❼ of the MIXING PLAYBACK procedure and then locate the program on Deck A's back-up tape.

② Load the recording tape into Deck B. (Do not load the playback tape into Deck B).

③ Press the PLAY (►) switch on Deck A and press the REC/REC MUTE switch on Deck B.

ENGLISH

DIRECT PROGRAM SEARCH

Direct program search is a function of Deck A.

By using the direct program search switches to select desired program numbers (numbers corresponding to the order in which programs are located on a tape), you can program up to 16 program selections in any desired order. This function allows you to conveniently pre-memorize the order of desired program playback.
For example, suppose you wish to play back a tape's 5th program (a "popular music" selection), 4th program (a "rock band" selection), and 1st program (a "classical music" selection), in that order.

A DATE: NOISE REDUCTION: ON · OFF ·	B DATE: NOISE REDUCTION: ON · OFF ·
1. Classical music	
2. Jazz band	
3. Country music group	
4. Rock band	
5. Popular music	

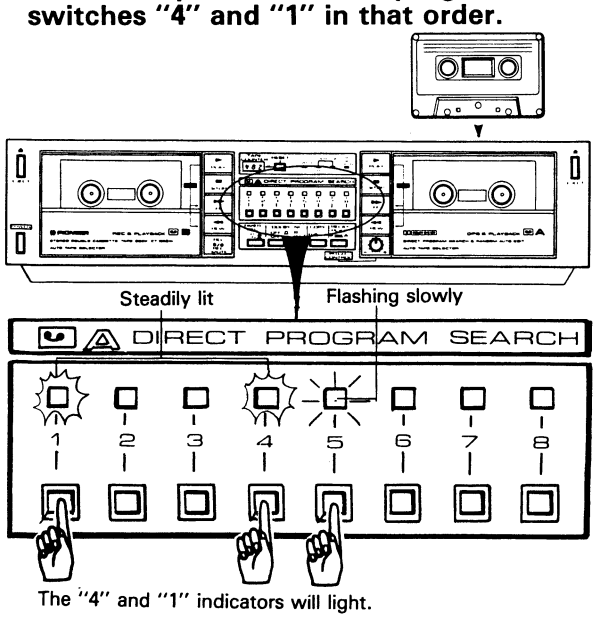
NOTE:
Numbers of programs given refer to the order of those programs from the beginning of a tape. "Program 1" means the first program on a tape side, "Program 2" means the 2nd program on a tape side, and so on.

❶ First, since the "popular music" program is located fifth on the tape, you would press the direct program search button "5".

When the switch is pressed the tape will be rewound to its start, then fast forwarded to the beginning of the "popular music" program.

During the rewind and fast forward operations, while the deck is searching for the beginning of the 5th program, the "5" indicator will flash slowly.

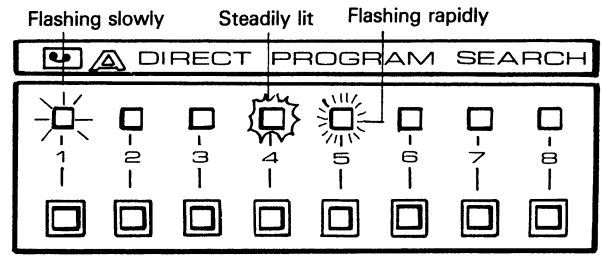
❷ Next, to select the 4th ("rock band" selection), and 1st program ("classical music" selection), press the direct program select switches "4" and "1" in that order.



The "4" and "1" indicators will light.

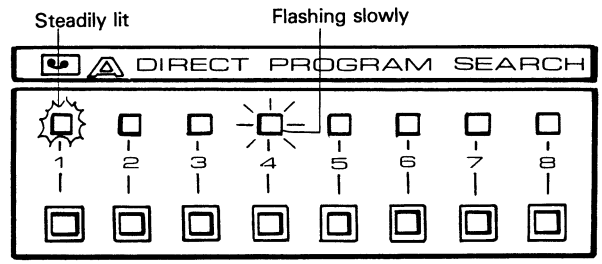
❸ When the deck has found the beginning of the "popular music" selection, the fast forward operation will stop. Indicator "5" will begin flashing rapidly, while indicator "4" will begin flashing slowly.

When the PLAY switch is pressed, playback of the "popular music" selection will begin. The flashing or steadily lit status of the indicators will remain as before.

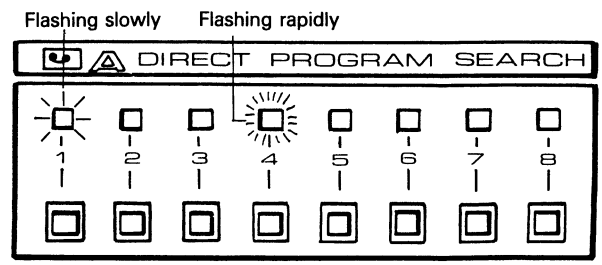


❹ When the "popular music" selection has finished playing, indicator "5" will stop flashing, and the deck will automatically search for the beginning of the "rock band" selection.

While searching for the beginning of the "rock band" selection, indicator "4" will flash slowly.



❺ When the beginning of the "rock band" selection is found, playback will begin automatically. Indicator "4" will begin flashing rapidly, while indicator "1" will begin flashing slowly.



⑥ When the "rock music" selection has completed its playback, indicator "4" will stop flashing, and the deck will automatically begin searching for the beginning of the "classical music" selection.

During the search for the "classical music" selection, indicator "1" will flash slowly. When the selection is found, the indicator will begin flashing rapidly as the deck automatically begins playback.

PROGRAM QUICK REPLAY

Program quick replay is a function of Deck A.

When you wish to listen once again to the program presently playing, merely press the REW switch. The tape will automatically be rewound to the beginning of the program selection and begin playback again.

In this case, any following programs which have been memorized will remain memorized in the correct order. When using the program quick replay function, allow at least 8 seconds to elapse after the beginning of playback of a program selection before pressing the REW switch.

PROGRAM MEMORY SKIP

Program memory skip is a function of Deck A.

When using the direct program search function as shown in the example given above, if you wish to skip the presently playing "popular music" program "5" and go on to the next memorized "rock" program selection "4", merely press the fast forward (FF) switch. The deck will stop playing program "5", automatically search for the beginning of the next memorized program "4" and begin playback again.

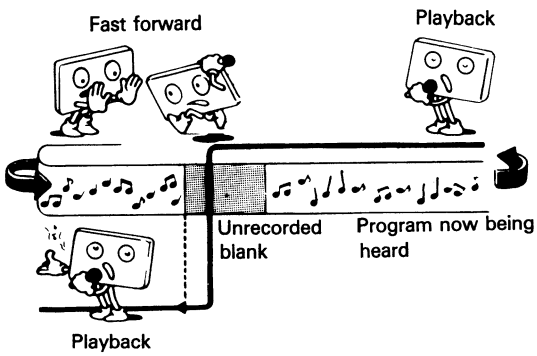
MS (MUSIC SEARCH)

MS (MUSIC SEARCH) MECHANISM

This mechanism detects the unrecorded blanks between the programs on the cassette tape and automatically sets the deck to the playback mode. Use it to find a program you want to hear among all the other programs on the tape or to listen to the same program again.

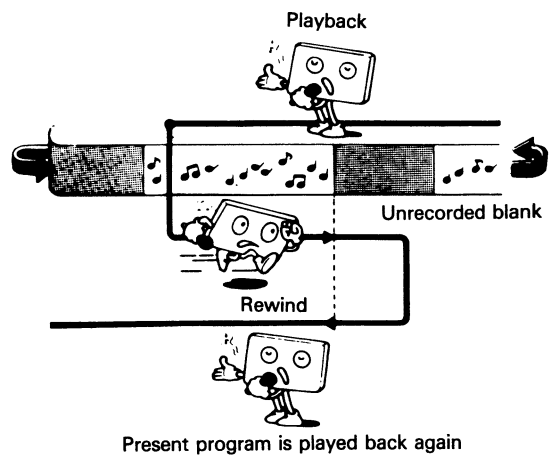
When listening to the next program

1. Depress the PLAY (►) switch and the FF (►►) switch.
2. Once the tape has been fast forwarded to the position where the unit has determined an unrecorded blank of 4 seconds, the fast forward operation is automatically stopped and the unit goes into the play mode.



When listening to the same program again

1. Press the PLAY (►) switch and the REW (◄◄) switch.
2. Once the tape has been fully rewound to the position where the unit has determined an unrecorded blank of 4 seconds, the rewinding operation is automatically stopped and the unit goes into the play mode.



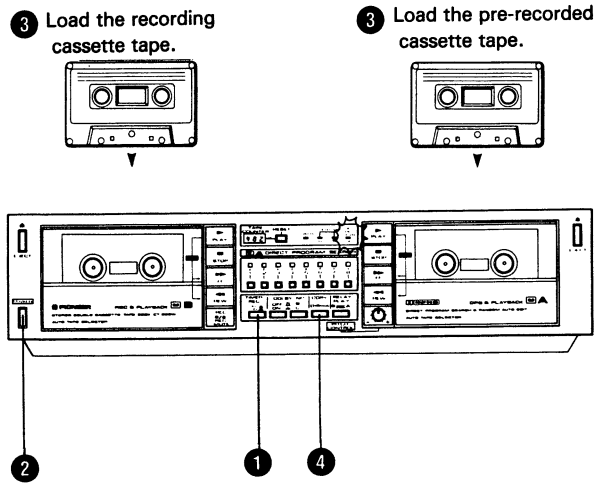
NOTE:
The music search and direct program search functions operate by detecting the unrecorded blanks between the programs, and may not work properly in the following circumstances. This is normal and therefore not indicative of a malfunction.

- *Tapes which do not have unrecorded blanks between the programs lasting about 4 to 6 seconds.*
- *Tapes with classical music recorded, for instance, where pianissimo sections continue for many seconds, and tapes where in a program the sound is broken for several seconds.*
- *Tapes whose programs have all been recorded at a low level.*
- *Tapes of conversation where the recording of the voice is intermittent.*
- *Tapes where a high level of noise or hum has been recorded between programs.*

ENGLISH

TAPE COPYING

"Tape copying" refers to the transfer of the contents recorded on one tape to another tape. Special tapes containing only your favorite music without the undesired programs can be prepared simply and speedily from pre-edited tapes which have been recorded from beginning to end. The tape in Deck A can be copied onto the tape in Deck B but not vice versa.



❶ Set the TIMER REC switch to OFF.

❷ Depress the POWER switch to ON.

❸ Load the playback (pre-recorded original) tape into Deck A and the recording (blank) tape into Deck B.

❹ Press the COPY switch.

When pressed, the REC/REC MUTE/COPY indicator will begin flashing slowly.
Deck A is set to the playback mode and Deck B to the recording mode, both tapes start moving simultaneously and tape copying starts.

NOTES:

- *For repeated tape copying, make the tape loaded in Deck A the original tape. The sound quality can deteriorate when a tape is copied from a cassette tape which has already been copied.*
- *In the case of tape copying, the recording level cannot be adjusted. If a tape recorded at a high sound level is played back on deck A, and this copied on deck B on a tape with a low saturation level, sound distortion may result, so care should be exercised. Insert a tape recorded at a proper level into deck A.*
- *It is customary to set the pitch control at the clickstop position, and the following points should be borne in mind when creating sound with the tape speed varied. If the tape speed is too slow, the tape in Deck B will reach the end before the program on the Deck A tape has been totally copied so that some of the recording will still remain. Even with the same standard tapes, there may be slight variations in the length of the individual tape depending on the manufacturer and steps should be taken so that none of the recording will remain.*
- *When the original tape is recorded on Dolby NR, the Dolby NR function will not operate, in order to avoid double Dolby recording.*

RANDOM AUTO EDIT

TO PERFORM TAPE COPYING IN A DESIRED PROGRAM ORDER:

The random auto editing function can be used when you wish to copy the programs of a tape in an order different from the order of programs on the original tape. Also, non-recorded intervals of about 4 seconds duration will be added automatically between programs on the newly copied tape.

1. Set the TIMER REC switch to the OFF.

2. Depress the POWER switch to the ON position.

3. Load the pre-recorded original tape (to be played back) into Deck A, and the blank recording tape into Deck B.

4. Press the direct program search switches in the order you wish to record the programs onto the new tape.

Deck A will begin searching for the memorized programs.

5. When the program search indicator begins flashing rapidly, it indicates that the deck has located the beginning of the first memorized program selection. When the COPY switch is then pressed, Deck A will enter the playback mode, while Deck B enters the recording mode for automatic copying of the tape contents.

6. While Deck A is searching for the beginning of the next program selection, Deck B will enter the recording standby (pause) mode.

7. When the beginning of the next program selection has been located, Deck B will be released from the standby mode, and begin recording once again.

8. When all the memorized programs have been recorded onto the tape in Deck B, the decks will be released from the copy mode.

NOTE:

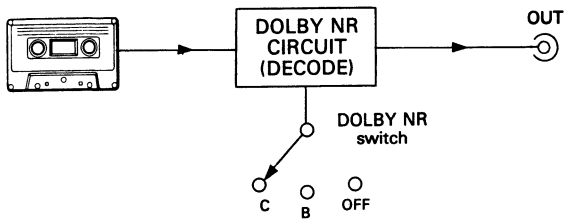
- If you wish to cancel the copy mode before its completion, press the STOP switch on either of the decks.
- The pitch control can be used during the copy mode in order to control the tape speed of Deck A.

For details on how to use the DOLBY NR switch, refer to the "RECORDING" section on USING THE DOLBY NR SWITCH on page 13.

USING THE DOLBY NR SWITCH

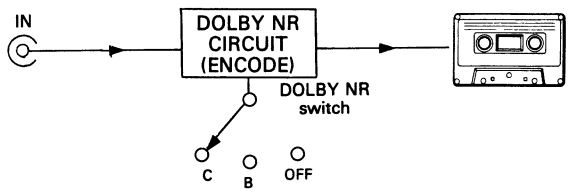
WHEN PLAYING BACK A TAPE ON DECK A OR DECK B.

The Dolby NR circuits will operate when playing back tapes on either Deck A or Deck B.



WHEN RECORDING ON DECK B.

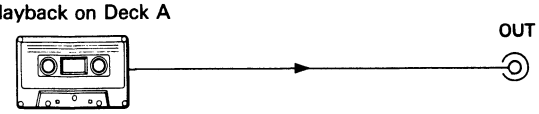
The Dolby NR circuits will operate when recording a tape on Deck B.

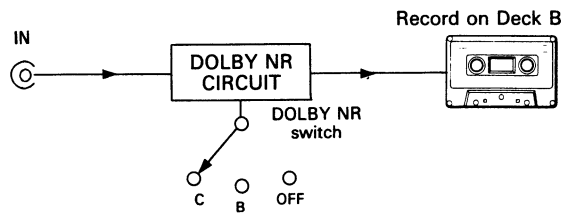


WHEN PLAYING BACK A TAPE ON DECK A AND RECORDING ON DECK B:

The Dolby NR circuits will operate only on the recording of the tape in Deck B. Since the Dolby NR circuit will not operate on Deck A at this time, the playback sounds of the tape in Deck A cannot be decoded (even if the tape which is played back on Deck A was originally recorded using Dolby NR, the tape sounds will not be played back through the Dolby NR circuit).

Playback on Deck A

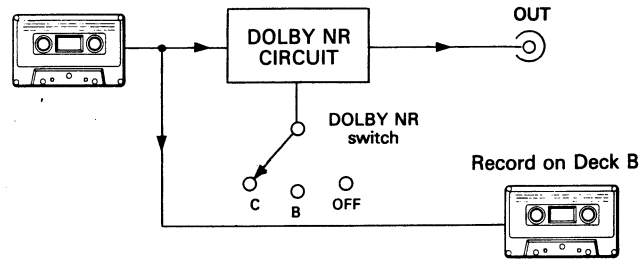




WHEN PERFORMING TAPE COPYING

When copying the contents of a tape, the contents of the tape in Deck A will be recorded onto the tape in Deck B in the same format, regardless of the position of the Dolby NR switch. This means that when copying the contents of a tape which was originally recorded using the Dolby NR system, the contents of the tape copy will also be recorded using the dolby NR system.

Playback on Deck A



ENGLISH

TROUBLESHOOTING

Incorrect operation is often mistaken for trouble or malfunctioning. If you think that something is wrong with your unit, check out the points below. The trouble may sometimes lie in another component. Investigate the speaker systems and other electrical apparatus which are being used. If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

Symptom	Probable cause	Remedy
Tape does not travel.	• Power cord is loose or unplugged.	• Plug the power cord firmly into an AC outlet.
	• When one deck is already in the playback mode, the other deck will not operate even if its PLAY switch is pressed.	• Stop operating one of the tape decks.
	• Cassette tape is improperly loaded.	• Load the cassette tape properly.
No sound.	• Connections with amplifier are incorrect.	• Check connections, and reconnect loose or disconnected cords.
	• No sound is recorded on tape.	• Replace with pre-recorded tape.
	• The amplifier volume controls are incorrectly adjusted.	• Set amplifier controls to correspond to signal level of tape.
Unit will not record.	• Accidental erasure prevention tabs on cassette are broken out.	• Replace with another cassette, or cover the tab holes with adhesive tape.
	• Heads are dirty.	• Clean the heads.
High frequency sound is not reproduced.	• Heads are dirty.	• Clean the heads.
	• Non-Dolby recorded tape is played back with Dolby ON.	• Set the DOLBY NR switch OFF (⊏.).
	• Heads are magnetized.	• Demagnetize the heads.
Sound is distorted.	• Heads are magnetized.	• Demagnetize the heads.
	• Heads are dirty.	• Clean the heads.
	• Recorded program itself is distorted.	• Replace with another cassette tape.
	• Recording level is set too high.	• Set the proper recording level.
Sound wavers or speeds up.	• The heads, pinch roller and capstan are dirty, or the cassette tape is wound too tightly.	• Clean heads, capstan, and pinch roller. Rewind tape on fast forward or rewind.
High noise level.	• Heads are magnetized.	• Demagnetize the heads.
	• Heads are dirty.	• Clean the heads.
	• Using a tape with a high noise level.	• Use another tape.
	• Loose cord connections.	• Check each INPUT and OUTPUT cord and connect firmly.
	• Recording level is set too low.	• Set proper recording level.
	• Tape recorded using Dolby NR system and being played back with DOLBY NR switch OFF.	• Set DOLBY NR switch ON (⊏.).
No erasing.	• Heads are dirty.	• Clean the heads.
Direct program search and music search do not operate.	• The non-recorded interval between programs is not 4 seconds long.	• Use a cassette with non-recorded intervals of at least 4 seconds.

DEW CONDENSATION

When the unit is moved from a cold to a warm room, or a quick temperature change occurs, condensation will form on the mechanical parts affecting performance of the unit. In such cases, leave the unit in a warmer atmosphere for approximately one hour, or gradually change the room temperature.

NOTE:
When locating the tape deck, do not place a cloth over the top or block the ventilation openings in any other way.

RECORDING USING THE AUDIO TIMER

Make use of an optional audio timer for recording programs you want to hear while you are out. Recording can be started automatically at the desired time.

The operation of the timer differs from model to model and so the timer's Operating Instructions should be studied closely.

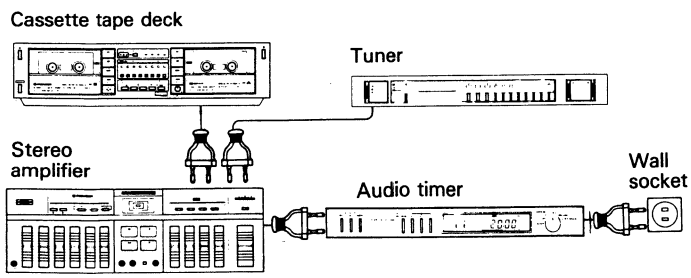
> Timer recording operations can be conducted on Deck B but not on deck A.

UNATTENDED RECORDING

1. Set the POWER switches of the components to OFF and connect them as shown in the figure.
2. Set the unit's TIMER REC switch to OFF.
3. Set the POWER switches of the components to ON and turn down the volume control on the stereo amplifier.
4. Press the EJECT button to open the cassette door. Check that the cassette's erasure prevention tabs have not been broken out and that the tape has been rewound onto the left-hand reel. Then load the cassette tape with the exposed tape surface facing down.

   > Remember that no sound can be recorded onto the leader tape.

5. Select the positions of the DOLBY NR switches.
6. Tune in the station whose program is to be recorded on the tuner.
7. Set the time on the audio timer so that the power comes on at the desired time (this action switches off the power to the audio components).
8. Set the unit's TIMER REC switch to ON. The power comes on at the preset time and recording starts about 4 seconds later automatically.



MAINTENANCE

Follow the maintenance instructions below to keep your tape deck working in tip-top condition.

CLEANING THE HEAD

The heads, capstan and pinch roller are parts which are liable to get dirty quite easily. In particular, if the heads are dirty, the high-frequency components are not reproduced and the stereo balance is impaired, resulting in a deterioration in the playback sound. It is therefore recommended that the head section be cleaned regularly.

1. Depress the EJECT button and open the cassette door.
2. Dip the cleaning swab into the cleaning fluid and use it to wipe the heads.
3. Set the power switch to ON.
4. Press the PLAY (►) switch.
5. Clean the pinch roller and capstan as they rotate.

> *NOTE:*
> *Do not load a tape after cleaning the head section until the cleaning fluid has completely dried (this takes two or three minutes).*

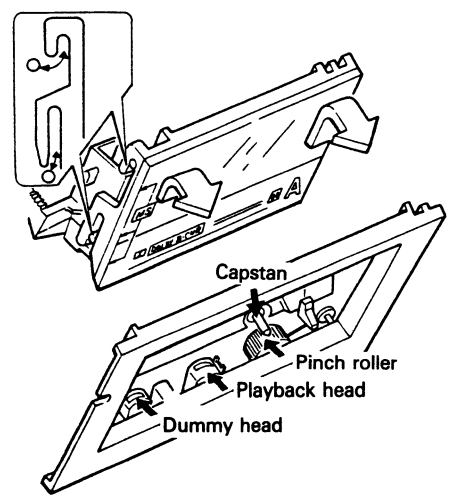
DEMAGNETIZING THE HEAD

The recording head becomes magnetized when you use the tape deck for prolonged periods of time. This results in noise being generated and the treble dropping off during recording and playback. The recording head should therefore be regularly demagnetized with a head demagnetiser, which is sold separately. For further details, refer to the head demagnetiser's instruction booklet.

> *NOTE:*
> *Do not hold screwdrivers, metal objects or magnets close to the heads.*

CLEANING THE FRONT PANEL SECTION

Wipe the front panel and the cassette holder when dusty or greasy with a soft cloth containing a small amount of ordinary washing-up liquid. Then, wipe dry with a cloth. Never use volatile spirits like thinners, benzine or alcohol because they will damage the panel's finish.



NOTE:
For the sake of convenience, the illustration is for Deck A.

ENGLISH

SPECIFICATIONS

System ..... 4 track, 2-channel stereo
Heads ..... "Hard Permalloy" recording/playback head x 1
"Hard Permalloy" playback head x 1
"Ferrite" erasing head x 1
Dummy erasing head x 1
Motor ..... DC servo motor x 2
Wow/Flutter ..... No more than 0.07% (WRMS)
No more than ±0.20% (DIN)
Fast Winding Time ..... Approx. 110 seconds (C-60 tape)
Frequency Response
−20 dB recording:
Normal tape ..... 30 to 14,500 Hz
(35 to 14,000 Hz ± 3 dB)
Chrome tape ..... 30 to 15,500 Hz
(35 to 14,500 Hz)
Metal tape ..... 30 to 16,000 Hz
(35 to 15,000 Hz ± 3 dB)
Signal-to-Noise Ratio
Dolby NR OFF ..... More than 57 dB
Noise Reduction Effect
Dolby type B NR ON ..... More than 10 dB (at 5 kHz)
Dolby type C NR ON ..... More than 19 dB (at 5 kHz)
Harmonic Distortion ..... No more then 1.0% (0 dB)
Input (Sensitivity)
LINE (INPUT) ..... 90 mV
(Input impedance 83 kΩ)
Output (Reference level)
LINE (OUTPUT) ..... 315 mV
(Output impedance 1.5 kΩ)

SUBFUNCTIONS

- One-touch recording
- Built-in Dolby B/C type nosie reduction system
- Full electronic auto-stop mechanism
- IC-based full logic control
- Automatic tape selector function
- Relay play function for continuous playback
- Tape copying function (From Deck A to Deck B)
- Pitch control function (Deck A)
- Music search function (Deck A and B)
- Timer standby function (Deck B)
- REC muting function
- Automatic level control
- Direct program search (Deck A)
- Program memory skip (Deck A)
- Program quick skip (Deck A)
- Random auto edit (From Deck A to Deck B)

MISCELLANEOUS

Power requirements
KU and KC models ..... AC 120 V, 60 Hz
S and S/G models ..... AC 110 V/120 V/220 V/240 V, 50/60 Hz (switchable)
HB and YP models ..... AC 240 V, 50/60 Hz
HEM model ..... AC 220 V, 50/60 Hz
Power consumption
KU, KC, HEM, HB and YP models ..... 17 watts
S and S/G models ..... 14 watts
Dimensions ..... 420 (W) x 102 (H) x 314.5 (D) mm
16-9/16 (W) x 4 (H) x 12-6/16 (D) in
Weight (without packaging) ..... 5.5 kg (12 lb 2 oz)

FURNISHED PARTS

Operating instructions 1
Connection cord with pin plug 2
Anti-slip cushion assembly (CT-1050W only) 1
Cotton swab set 1

NOTES:
1. Reference Tapes:
Normal and LH: DIN 44513/BLATT6 or equiv.
CrO_2 DIN 45513/BLATT7 (CrO_2) or equiv.
2. Reference Recording Level: −10 dBv level at line out (160 nwb/m magnetic level = Philips cassette reference level)
3. Reference Signal: 315 Hz
4. Wow and Flutter: • JIS [3 kHz, with acoustic compensation (weighted) rms value]; DIN [3,150 Hz, with acoustic compensation (weighted) PEAK value DIN 45507
5. Frequency Response: • Measured at − 20 dB level, DOLBY NR OFF, level deviation is ± 6 dB without indication.
6. Signal to Noise Ratio: • Measured at the third harmonic distortion 3% level, weighted (DIN 45513/BLATT7).
7. Sensitivity: Input level (mV) required for reference recording level with input (REC) level controls set to maximum.
8. Maximum Allowable Input: While decreasing settings of input (REC) level controls and increasing level at input jacks, this is the maximum input level (mV) at the point where recording amplifier output wave form becomes clipped.
9. Reference Output Level: −10 dBv level at line out during playback.
10. This model does not employ a recording/playback connector (DIN-type).

NOTE:
Specifications and the design are subject to possible modifications without notice due to improvements.

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacture's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient the receiving antenna
- relocate the cassette tape deck with respect to the receiver
- move the cassette tape deck away from the receiver
- plug the cassette tape deck into a different outlet so that the cassette tape deck and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful.
"How to Identify and Resolve Radio-TV Interference Problems".
This booklet is available from the US Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.

The above instructions apply only to units which will be operated in the United States.